

REMARKS/ARGUMENTS

Claims 36, 44-47, 54-56, 58, 65-, 74, and 78 have been amended, and claims 79-81 have been added. Claims 36-58 and 60-81 are now pending in the application. (Claims 1-35 and claim 59 were previously canceled.) Applicants respectfully request reexamination and reconsideration of the application.

Initially, Applicants note that the listings of prior art in two Information Disclosure Statements ("IDS") have not been initialed and returned. The first IDS was mailed on January 8, 2002 and listed 54 references. It was received by the PTO on January 28, 2002 and is listed in the PTO's PAIR system as number 11, dated January 28, 2002. The second IDS was submitted electronically on May 5, 2003. Applicants ask the Examiner to consider the art cited in both of these IDS's and initial and return the listings of prior art.

Claims 58, 60-74, and 76-78 were rejected under 35 USC 102 as anticipated by US Patent No. 5,974,662 to Eldridge et al. ("Eldridge"). Claims 36, 39-57, and 75 were rejected as obvious in view of Eldridge and US Patent No. 4,820,976 to Brown et al. ("Brown"). Claims 37, 38, and 60 were rejected as obvious in view of Eldridge and US Patent No. 6,184,053. Claims 49 and 50 were rejected as obvious in view of Eldridge and US Patent No. 6,064,213. ("Khandros"). Claims 42 and 63 were rejected as obvious in view of Eldridge and Brozowski et al., Electronic Packaging and Interconnection Handbook, McGraw Hill 1997. Applicants respectfully traverse these rejections.

Turning first to the rejection of independent claim 58, that claim describes a test apparatus for testing an electronic device in which electrical paths are formed from first terminals on the contactor, through the first and second contact elements extending from either side of the interposer to second terminals on the electronic device being tested. Claim 58 further includes:

"means for securing said interposer with respect to said contactor such that at least one of said contactor or said interposer is moveable between a first position and a second position,

wherein in said first position, said first plurality of contact elements do not contact said first terminals on said contactor, and

in said second position, said first plurality of contact elements contact said first terminals on said contactor and said first plurality of contact elements and said second plurality of contact elements provide electrical connections from said first terminals on said contactor to a second plurality of terminals on said electronic device."

While the interposer 504 or space transformer 506 in Figure 5 of Eldridge are secured to probe card 502 (by screws 542, mounting ring 540 and mounting plates 534, 532 and 530), interconnection elements 514 remain at all times in contact with terminals 510 on probe card 502. (See Eldridge, cols 24-28, section entitled "Probe Card Assembly.") Moreover, none of the other cited references makes up for the above-described missing teaching. Independent claim 58 as well as claims 60-74, 76-78, and 81 (all of which depend from claim 58) thus distinguishes over Eldridge and the other cited references.

Turning next to independent claim 36, Applicants traverse the rejection of this claim on the grounds that there is insufficient motivation to combine Eldridge and Brown. In the Office Action, it is alleged that a person would replace Eldridge's rigid probe card 602 with Brown's thin film member 20 in order to assure sufficient and balanced electrical contact between probes 524 and the terminals 526 on wafer 508 in Eldridge's Figure 5. Replacing Eldridge's probe card 602 with Brown's thin film member 20 would not, however, affect the sufficiency or balance of the electrical contact between probes 524 and terminals 526.

As described in Brown, Brown's thin film member 20 achieves sufficiency and balance by flexing to compensate for irregular heights in the chip contacts 56. (Brown col. 4, lines 43-56.) That is, if two chip contacts 56 have different heights, the portion of the thin film member 20 between the two contacts 24 flexes, allowing the two contacts 24 to be at different heights as they contact the two chip contacts 56. Because Eldridge's probes 524 are not mounted on the probe card 502 (as Brown's contacts 24 are mounted on Brown's thin film member 20), making the probe card 502 flexible would not achieve the same results as Brown. (It should be noted that Eldridge compensates for irregular heights of terminals 526 by using resilient, flexible probes 524 on a rigid space transformer 506. Thus, Eldridge's probes 524 flex to compensate for variations in the heights of terminals 526.)

It should be noted that the passage in Brown relied on in the Office Action for motivation to combine Eldridge and Brown refers only to thermal conductivity. The passage does not refer to sufficiency or balance of electrical contact. (See Brown col. 1, lines 41-43.)

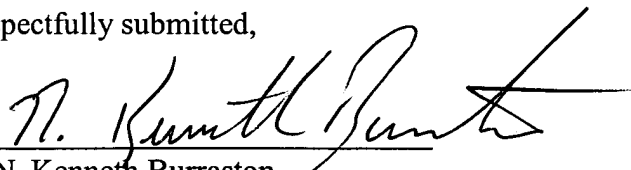
For all of the foregoing reasons, replacing Eldridge's probe card 502 with Brown's thin film member 24 would not have any effect on probes 524 much less any effect on the sufficiency or balance of the electrical contact between probes 524 and terminals 526. There is, therefore, insufficient motivation to replace Eldridge's probe card 502 with Brown's thin film member 20.

For all of the foregoing reasons, claim 36 (as well as claims 37-57, 75, 79, and 80, all of which depend from claim 36) patentably distinguish over the combination of Eldridge and Brown or any other reference cited in the Office Action.

In view of the foregoing, Applicants submit that all of the claims patentably distinguish over the prior art. Therefore, the rejections of the claims should be withdrawn and the application passed to allowance. If the Examiner believes that a discussion with Applicants' attorney would be helpful, the Examiner is invited to contact the undersigned at (801) 323-5934.

Respectfully submitted,

Date: March 17, 2004

By 
N. Kenneth Burraston
Reg. No. 39,923

Kirton & McConkie
1800 Eagle Gate Tower
60 East South Temple
P.O. Box 45120
Salt Lake City, Utah 84111-1004
Telephone: (801) 323-5934
Fax: (801) 321-4893